

EXPRESS MAIL LABEL NO. EL902321373US

F000057

1.(AMENDED) Oxide cathode comprising a support and an oxide layer on the support, wherein it furthermore includes particles of a conducting material having a first end incorporated in the support and a second end lodged in the oxide layer, so as to constitute conducting bridges passing through an interface layer forming between the support and the oxide layer.

2.(AMENDED) Oxide cathode according to Claim 1, wherein the conducting material of the particles is a carbide of one or more metals.

3.(AMENDED) Oxide cathode according to Claim 2, wherein the conducting material of the particles is a carbide of one or more metals of Group IVB, and preferably at least one metal from: titanium, zirconium and hafnium.

Q2
4.(AMENDED) Oxide cathode according to Claim 2 wherein the conducting material of the particles is a carbide of one or more metals of Group VB, and preferably at least one metal from: vanadium, niobium and tantalum.

5.(AMENDED) Oxide cathode according to Claim 2, wherein the conducting material of the particles is a carbide of one or more metals of Group VIB, and preferably at least one metal from: chromium, molybdenum and tungsten.

6.(AMENDED) Oxide cathode according to Claim 1, wherein the support is made of metal, preferably a nickel-based metal.

7.(AMENDED) Electron tube, wherein it comprises an oxide cathode according to Claim 1.

8.(AMENDED) Cathode-ray tube, wherein it comprises an oxide cathode according to Claim 1.

EXPRESS MAIL LABEL NO. EL902321373US

F000057

9.(AMENDED) Process for manufacturing an oxide cathode, in which an oxide layer is deposited on a support wherein it comprises the steps consisting in:

- furnishing that surface of the support which is intended to receive the oxide layer with particles of conducting material so that the particles have a first end incorporated in the support and a second end which is exposed; and
- covering said surface with an oxide layer.

10.(AMENDED) Process according to Claim 9, wherein the step of furnishing the particles of conducting material consists in spreading out the particles over said surface and in applying a force to the particles in order to encrust said first end of the latter in the support.

11.(AMENDED) Process according to Claim 9, wherein the step of furnishing the particles of conducting material consists in incorporating the particles in the support and in making said second end stand out from the support by a surface treatment, for example by means of a selective chemical etching treatment.

12.(AMENDED) Process according to Claim 11, wherein the particles are incorporated in the support during the metallurgical production of the latter.

13.(AMENDED) Process according to Claim 11, in which the support is formed by drawing, wherein said second end of the particles is made to stand out before the drawing.

14.(AMENDED) Process according to Claim 11, in which the support is formed by drawing, wherein said second end of the particles is made to stand out after the drawing.

15.(AMENDED) Process according to Claim 9, wherein the conducting material of the particles is a carbide of one or more metals.